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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/791,003	03/01/2004	Zhi Zhiou	Zhou 10	1307

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EXAMINER

DEGHAN, QUEENIE S

ART UNIT	PAPER NUMBER
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1731

DATE MAILED: 02/17/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 10/791,003	Applicant(s) ZHIOU, ZHI	
	Examiner Queenie Dehghan	Art Unit 1731	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 01 March 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-21 is/are pending in the application.
- 4a) Of the above claim(s) 12-21 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-11 is/are rejected.
- 7) ☒ Claim(s) 8 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 01 March 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Election/Restrictions

1. Restriction to one of the following inventions is required under 35 U.S.C. 121:
 - I. Claims 1-11, drawn to a method for drawing optical fiber, classified in class 65, subclass 402.
 - II. Claims 12-21, drawn to an apparatus for drawing optical fiber, classified in class 65, subclass 533.

The inventions are distinct, each from the other because of the following reasons:

2. Inventions Group I and Group II are related as process and apparatus for its practice. The inventions are distinct if it can be shown that either: (1) the process as claimed can be practiced by another materially different apparatus or by hand, or (2) the apparatus as claimed can be used to practice another and materially different process. (MPEP § 806.05(e)). In this case the apparatus as claimed can be used to practice another and materially different process, such as melting chocolate.
3. Because these inventions are distinct for the reasons given above and have acquired a separate status in the art as shown by their different classification, restriction for examination purposes as indicated is proper.
4. Because these inventions are distinct for the reasons given above and the search required for Group I is not required for Group II, restriction for examination purposes as indicated is proper.

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5. During a telephone conversation with Michael Morra on January 4, 2006 a provisional election was made with traverse to prosecute the invention of Group 1, claims 1-11. Affirmation of this election must be made by applicant in replying to this Office action. Claim 12-21 are withdrawn from further consideration by the examiner, 37 CFR 1.142(b), as being drawn to a non-elected invention.

Claim Objections

6. Claim 8 is objected to under 37 CFR 1.75(c), as being of improper dependent form for failing to further limit the subject matter of a previous claim. Applicant is required to cancel the claim(s), or amend the claim(s) to place the claim(s) in proper dependent form, or rewrite the claim(s) in independent form. Claim 8 recites a rotationally stationary perform which is dependent on a rotational perform in claim 1. Both states cannot simultaneously occur and does not further limit the independent claim. Claim 8 will be treated independently.

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

7. Claim 8 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. Claim 8 recites a rotationally stationary perform which is dependent on a rotational perform in claim 1. Both states cannot simultaneously occur, therefore it is unclear as to what the invention claims.

Claim Rejections - 35 USC § 102

8. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

9. Claims 1-3, 7, and 11 are rejected under 35 U.S.C. 102(b) as being anticipated by Cocchini et al. (6,327,876). Cocchini et al. disclose a method for drawing an optical fiber in figure 1, where the optical perform (106) has a longitudinal axis and is passed through the furnace (104), which heats the perform as it passes through and drawing an optical fiber from the heated perform (col. 5 lines 48-49, 55-56, 65-66). Furthermore, Cocchini et al. disclose the rotating of the perform along its longitudinal axis relative to the heat source during the drawing process, at a rate of 600 rpm, which is a constant rate of rotation.

10. Claims 1, 5-7, 10 and 11 are rejected under 35 U.S.C. 102(b) as being anticipated by Fujimaki et al. (WO00/69782, see English translation US 6,789,399). Fujimaki et al. disclose a method for making an optical fiber by providing a optical fiber preform with a longitudinal axis that is heated in a stationary furnace (col. 2 line 67) and rotated in a first direction with respect to the heat source, from which a fiber is drawn (col. 3 lines 5-13). Additionally, Fujimaki et al. disclose the additional possibility of rotating the fiber perform about its longitudinal axis alternately clockwise and counterclockwise (col. 5 lines 63-67, Figure 1 and 2A). In Table 1, Fujimaki et al.

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provide an example where the fiber drawn from a rotated preform has a PMD coefficient less than $0.2 \text{ picoseconds}/(\text{kilometer})^{1/2}$.

11. Claims 1, 3, 4, 9 and 10 are rejected under 35 U.S.C. 102(b) as being anticipated by Henderson et al. (6,240,748). Henderson et al. disclose a process for making fiber from heating an optical fiber perform with a longitudinal axis in a heat source, while rotating the perform about its axis or spinning the fiber as it is drawn, and drawing a fiber from the perform (col. 4 lines 58-67). Henderson et al. also disclose rotating the preform or spinning the fiber at a constant rate (col. 5 lines 1-6) or at a variable rate (col. 9 lines 28-32). Furthermore, Henderson et al. disclose a process where a fiber has a PMD coefficient less than $0.2 \text{ picoseconds}/(\text{kilometer})^{1/2}$ (col. 3 lines 27-30).

12. Claim 8 is rejected under 35 U.S.C. 102(b) as being anticipated by Kato (JP Abstract 11130455). Kato teach of a rotating furnace while maintaining a perform rotationally stationary, in the drawing of an optical fiber (Abstract).

Claim Rejections - 35 USC § 103

13. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

14. Claim 9 is rejected under 35 U.S.C. 103(a) as being unpatentable over Fujimaki et al. (6,789,399) or Cocchini et al. (6,327,876), as applied to claim 1 above, and in view

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of Hart, Jr. et al. (5,418,881). Cocchini et al. and Fujimaki et al. disclose a process for drawing optical fibers from a rotating perform, but does not disclose a further step of spinning the fiber as it is drawn. Hart, Jr. et al. disclose a step of spinning the fiber as it is being drawn (col. 4 lines 16-17, figure 1). It would have been obvious to one of ordinary skill in the art at the time the invention was made to spin the fiber as it is drawn, as disclosed by Hart, Jr. et al., in Cocchini et al. and Fujimaki et al. process for forming an optical fiber, in order to reduce PMD in the fiber, as taught by Hart, Jr. et al.

Conclusion

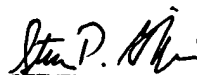
Any inquiry concerning this communication or earlier communications from the examiner should be directed to Queenie Dehghan whose telephone number is (571)272-8209. The examiner can normally be reached on Monday through Friday 8:30am - 5:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Steven Griffin can be reached on 571-272-1189. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

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